

# Long Covid, a descriptive observational study from Andalusian community pharmacies

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## Background information

There are patients who experience persistent symptoms after overcoming COVID-19, this clinical situation is called Long-COVID. Currently, there is high uncertainty about how to treat this pathology. Cohort studies on Long COVID patients are available, but further research is needed. For this reason, we propose a descriptive observational study from community pharmacies.

## Methods

Patients with persistence symptoms during more than 12 weeks are followed up. Once patients who have suffered COVID-19 and remain symptomatic after overcoming the acute phase have been identified, they are invited to participate in the study. Informed consent is collected and the following variables are recorded in the first interview:

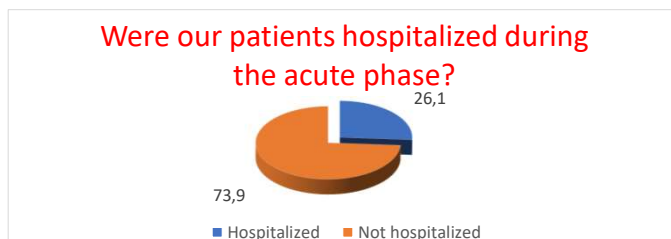
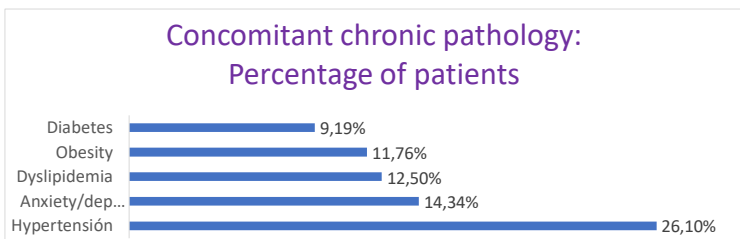
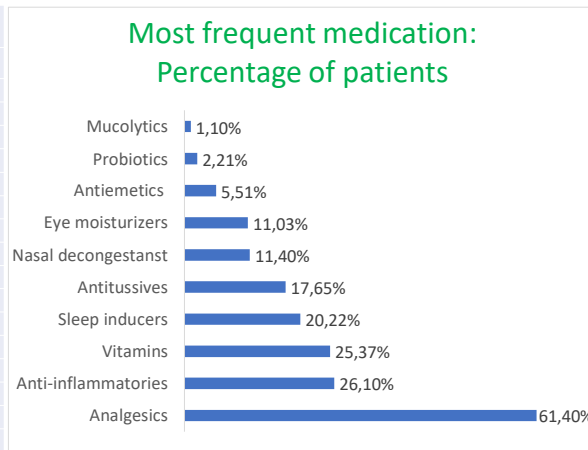
- Persistent symptoms, with start and end dates.
- Non-prescription medications patients use for their relief.
- Previous long term-conditions.
- Hospitalization.
- Hospital stays in intensive care units.
- Sex.
- Age.

Appointments are made monthly to update information, noting the end date of the persistent symptoms in your case.

The field work is carried out by pharmacists in Andalusian community pharmacies, which are previously provided with the procedure in a training session. The information is recorded on the AxonFarma<sup>®</sup> platform.

## Results

Most frequent persistent symptoms		
Symptom	Percentage of patients	Confidence interval at 95%
Joint pain	52,57%	(46,64-58,50)
Muscle pain	50,37%	(44,43-56,31)
Fatigue	48,16%	(42,22-54,10)
Headache	40,81%	(34,94-46,65)
Dyspnoea	38,97%	(33,17-44,77)
Sleep disturbance	37,13%	(31,39-42,87)
Loss of consciousness	34,93%	(29,26-40,60)
Memory problems	32,72%	(27,14-38,30)
Tingle	30,15%	(24,70-35,60)
Chest pain	29,41%	(24,00-34,82)
Palpitations	28,68%	(23,31-34,05)
Cough	27,21%	(21,92-32,50)
Loss of smell	24,63%	(19,51-29,75)
Dizziness	24,26%	(19,17-39,35)
Depression, anxiety	23,53%	(18,49-28,57)
Mental confusion	23,16%	(18,15-28,17)



## Conclusions

Musculoskeletal symptoms followed by general symptoms are the most common. In terms of medications, analgesics were the most used. Although hypertension is the most frequent chronic illness among patients with persistent symptoms after COVID-19 disease, it occurs in a similar proportion to the one that occurs in the general population. The persistence of symptoms is common in non-hospitalized patients in their acute phase. However, the proportion of patients hospitalized in the acute phase is higher among patients with Long covid, than even among covid patients aged 60 years or older.

## Bibliography

1.-BMJ 2020;370:m2815. <http://dx.doi.org/10.1136/bmj.m2815>. Published: 14 July 2020

2.-Carfi A, Bernabei R, Landi F Gemelli Against COVID-19 Post-Acute Care Study Group. Persistent symptoms in patients after acute covid-19. JAMA 2020;9. doi: 10.1001/jama.2020.12603. Pmid: 32644129.

3.-www.thelancet.com Vol 396 December 12, 2020.

4.-Bellan M et al. Respiratory and psychophysical sequelae among patients with COVID19 four months after hospital discharge. JAMA network open. 2001;4(1): e2036142.doi:10.1001/jamanetworkopen.2020.36142.

5.-Jenifer K. et al. Secuelas in adults at 6 months after COVID-19 infection. JAMA network open. 2021; 4(2): e210830. Doi:10.1001/jamanetworkopen.2021.0830.

6.- Ortiz Marrón H, Vaamonde Martín RJ, Zorrilla Torrás B, Arrieta Blanco F, Casado López M, Medrano Albero MJ. Prevalencia, grado de control y tratamiento de la hipertensión arterial en la población de 30 a 74 años de la comunidad de Madrid. estudio PREDIMERC. Rev Esp Salud Pública 2011. Vol. 85, N.º 4.

7.- Ministerio de Sanidad, Gobierno de España. Sistema de información del Sistema Nacional de Salud, base de datos clínicos de atención primaria. Numero 3. 2020.

